PATENT MATI-226US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No:

To Be Assigned

Applicant:

Nikolaus H. Lehmann et al.

Filed:

18

Herewith

Title:

METHODS AND APPARATUS FOR TRANSMITTING AND RECEIVING

RANDOMLY INVERTED WIDEBAND SIGNALS

TC/A.U.:

To Be Assigned To Be Assiged

Examiner:

Docket No.:

MATI-226us

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98 and to the duty of disclosure set forth in 37 C.F.R. § 1.56, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the PTO 1449 (RP) submitted herewith. A copy of each of the non-U.S. patents/publications listed as references are also enclosed.

Although the information submitted herewith may be "material" to the Examiner's consideration of the subject application, this submission is not intended to constitute an admission that such information is "prior art" as to the claimed invention.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

PATENT MATI-226US

This Information Disclosure Statement is being filed concurrently with the abovereferenced application.

Respectfully submitted,

Kenneth N. Nigon, Reg. No. 31,549 Stephen J. Weed, Reg. No. 45,202 Attorney(s) for Applicant(s)

SJW/tmb

Enclosures: PTO Form 1449

(3) References

Dated: February 25, 2004

P.O. Box 980 Valley Forge, PA 19482 (610) 407-0700

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. 18-0350 of any fees associated with this communication.

EXPRESS MAIL

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February 25, 2004

I hereby certify that this paper and fee are being deposited, under 37 C.F.R. § 1.10 and with sufficient postage, using the "Express Mail Post Office to Addressee" service of the United States Postal Service on the date indicated above and that the deposit is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Substitute for Form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

SHEET 1 of 2

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	Complete if Known	
Application Number	To Be Assigned	
Filing Date	Herewith	
First Named Inventor	Nikolaus H. Lehmann et al.	
Art Unit	To Be Assigned	
Examiner Name	To Be Assigned	
Attorney Docket No.	MATI-226US	

	U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No.1	Document Number Number - Kind Code ² (if known)	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1.	US-6,606,350 B2	08/12/2003	Dress, Jr. et al.	Entire Document
	2.	US-5,901,172	05/04/1999	Fontana et al.	Entire Document
	3.	US-5,523,760	06/04/1996	McEwan	Entire Document
	4.	US-5,345,471	09/06/1994	McEwan	Entire Document
	5.	US-2003/0227984 A1	12/11/2003	Batra et al.	Entire Document
	6.	US-2003/0227961 A1	12/11/2003	Batra et al.	Entire Document
		US-			
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		US-			

FOREIGN PATENT DOCUMENTS						
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited	Pages, Columns, Lines, Where Relevant Passages or Relevant	
Initials*	No.1	Country Code ³ - Number ⁴ - Kind Code ^{5 (If known)}	(MM-DD-YYYY)	Document	Figures Appear	T ⁶

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

¹Applicant's unique citation designation number (optional).

²See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.

³Enter Office that Issued the document, by the two-letter code (WIPO Standard St.3).

For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.

⁶Applicant is to place a check mark here if English language translation is attached.

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Substitute for Form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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SHEET 2 of 2

Complete if Known			
Application Number	To Be Assigned		
Filing Date	Herewith		
First Named Inventor	Nikolaus H. Lehmann et al.		
Art Unit	To Be Assigned		
Examiner Name	To Be Assigned		
Attorney Docket No.	MATI-226US		

NON-PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²	
	7.	MOE Z. WIN ET AL., Ultra-Wide Bandwidth Time-Hopping Spread-Spectrum Impulse Radio for Wireless Multiple-access Communications, IEEE Transactions on Communications, Vol. 48, No. 4, pp. 679-691, April 2000.		
	8.	JAC ROMME ET AL., On the Power Spectral Density of Time-Hopping Impulse Radio, IEEE Conference on Ultra Wideband Systems and Technologies, 2002		
	9.	MOE Z. WIN, Spectral Density of Random Time-Hopping Spread-Spectrum UWB Signals with Uniform Timing Jitter, Proc. MICOM '99, Vol, 2, pp. 1196-1200, 1999.		
Examiner	<u> </u>	Date		
Signature	1	Considered		

²Applicant's unique citation designation number (optional).

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